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=> file hcaplu
FILE 'HCAPLUS' ENTERED AT 14:11:45 ON 12 SEP 2006
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FILE COVERS 1907 - 12 Sep 2006  VOL 145 ISS 12
FILE LAST UPDATED: 11 Sep 2006  (20060911/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que
L2                STR
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unsaturated carboxylic acid

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NODE ATTRIBUTES:
CONNECT IS E1  RC AT   1
CONNECT IS E3  RC AT   2
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DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 1
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
L4 SCR 2043
L6 STR 2

ethylene or propylene

CH2:CH-G1
1 2 3

VAR G1=H/CH3
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
L8 STR 3

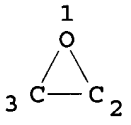
O—CH2-G1 CH2-CH2-O—C H3C—CH2-O—C CH2-O—C
1 2 3 @4 5 6 7 8 @9 10 11 @12 13 14

ethylene or propylene glycol

VAR G1=4/9/12
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L10 STR 4



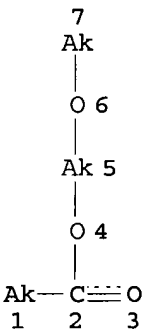
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 3

112,777 polymers from structure 1 and 2 and (3 or 4)

STEREO ATTRIBUTES: NONE
L12 112777 SEA FILE=REGISTRY SSS FUL L2 AND L6 AND (L8 OR L10) AND L4
L13 13901 SEA FILE=REGISTRY ABB=ON 74-85-1/CRN
L14 6721 SEA FILE=REGISTRY ABB=ON 115-07-1/CRN
L15 2359 SEA FILE=REGISTRY ABB=ON L12 AND (L13 OR L14)

L20 STR



NODE ATTRIBUTES:
CONNECT IS E1 RC AT 1
CONNECT IS E3 RC AT 2
CONNECT IS X2 RC AT 7
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 1
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L22 36740 SEA FILE=REGISTRY SUB=L12 SSS FUL L20
L23 13142 SEA FILE=REGISTRY ABB=ON L22 NOT 1-500/NR
L24 258 SEA FILE=REGISTRY ABB=ON L15 AND L23
L25 245 SEA FILE=HCAPLUS ABB=ON L24
L26 6 SEA FILE=HCAPLUS ABB=ON L25 AND ELECTROLYT?
L27 5189 SEA FILE=HCAPLUS ABB=ON L15
L28 25 SEA FILE=HCAPLUS ABB=ON L27 AND ELECTROLYT?
L29 7 SEA FILE=HCAPLUS ABB=ON L28 AND ?CROSSLINK?
L30 25 SEA FILE=HCAPLUS ABB=ON L26 OR L28 OR L29
L31 20 SEA FILE=HCAPLUS ABB=ON L30 AND (1840-2003)/AY,PRY,PY

20 CA reference limited by priority of ≥ 2003

=> d l31 1-20 bib abs hitind hitstr

L31 ANSWER 1 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:315950 HCAPLUS
DN 142:376551
TI Separator for fuel cell, its manufacture, and the fuel cell
IN Izutsu, Hitoshi
PA Dainippon Ink and Chemicals, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

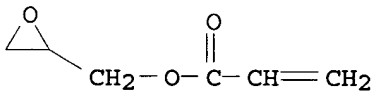
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005100814	A2	20050414	JP 2003-333451	20030925 <--
PRAI	JP 2003-333451		20030925 <--		

AB The separator is obtained by molding a conductive particulate containing conductive composition, having an elastomer and/or a gum polymer dispersed in a matrix resin; where the elastomer and the gum polymer has an number average

particle size 0.05-5 μm. The separator is manufactured by mixing conductive particulates with a mixture of a premixed matrix resin and an elastomer and/or a gum polymer to obtain conductive composition; and molding the composition
The fuel cell has an **electrolyte** membrane between an electrode pair and the above separators stacked the **electrolyte**-electrode laminate.
IC ICM H01M008-02
ICS H01M008-10
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
IT **36704-47-9**, Ethylene-glycidyl acrylate copolymer 106107-54-4, Butadiene-styrene block copolymer
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(compns. and manufacture of separators containing elastomers and/or rubbers with
controlled number average particle size for fuel cells)
IT **36704-47-9**, Ethylene-glycidyl acrylate copolymer
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(compns. and manufacture of separators containing elastomers and/or rubbers with
controlled number average particle size for fuel cells)
RN 36704-47-9 HCAPLUS
CN 2-Propenoic acid, oxiranylmethyl ester, polymer with ethene (9CI) (CA INDEX NAME)

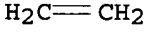
CM 1

CRN 106-90-1
CMF C6 H8 O3



CM 2

CRN 74-85-1
CMF C2 H4



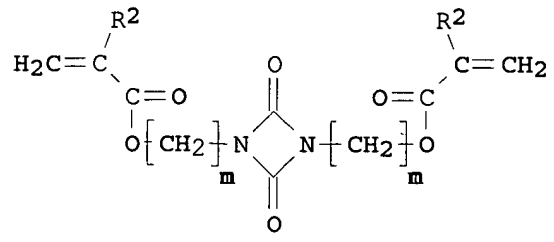
L31 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:11686 HCAPLUS
DN 142:95239
TI Double bond-containing carbodimides and urethodiones, their derivatives and manufacture, **crosslinking** agents containing them, and their **crosslinked** polymers and applications
IN Aizawa, Wakana; Takada, Masakazu; Miura, Hidetoshi; Hyodo, Kenji; Ikegami, Koshiro; Fujita, Rei
PA Mitsubishi Paper Mills, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 1

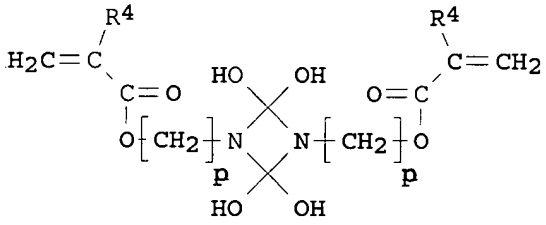
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005002079	A2	20050106	JP 2003-193399	20030708 <--
PRAI	JP 2002-200322	A	20020709 <--		
	JP 2002-304466	A	20021018 <--		
	JP 2002-340421	A	20021125 <--		
	JP 2002-351679	A	20021203 <--		
	JP 2002-368722	A	20021219 <--		
	JP 2002-376484	A	20021226 <--		
	JP 2003-3105	A	20030109 <--		
	JP 2003-29004	A	20030206 <--		
	JP 2003-111573	A	20030416 <--		

OS MARPAT 142:95239

GI



I



II

AB The carbodiimides, urethodiones, and their derivs. are CH2:CR1CO2(CH2)lN:C:N(CH2)lCO2CR1:CH2 (I), II, and CH2:CR3CO2(CH2)nNHC[O(CO)rCOCR3:CH2]:N(CH2)nCO2CR3:CH2 and III (R1-R4 = H, alkyl; Q = divalent linkage; l, m, n, p = 2-6; r = 0-5), resp. The polymers are useful for ion-conductive compns. for electrochem. devices, e.g., batteries, capacitors. Thus, Karenzu MOI (IV; 2-methacryloyloxyethyl isocyanate) was carbodiimized in the presence of p-nitrophenol as a thermal polymerization inhibitor and 3-methyl-1-phenyl-2-phospholene 1-oxide to give I (R1 = Me, l = 2), which was polymerized with NK Ester A 9300 and IV in nonaq. **electrolytic** solution comprising LiPF6, ethylene carbonate, and CO(OEt)2 to give a gel showing ion conductivity 4.9 + 10-3 S/cm at room temperature and no degradation after heating at 80° for 14 days. A secondary Li battery using the gel showed good durability.

IC ICM C07C267-00
ICS C07C275-70; C07D229-00; C08F020-36; H01B001-06; H01B001-12; H01G009-038; H01M006-18; H01M010-40; H01M014-00

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 23, 37, 52, 76

ST carbodiimide urethodione **crosslinking** agent manuf; ionic conductor **crosslinked** acrylic polycarbodiimide lithium salt; lithium battery **electrolyte crosslinked** acrylic polycarbodiimide; capacitor **electrolyte crosslinked**

polycarbodiimide; methacryloyloxyethyl isocyanate carbodiimidization nitrophenol thermal polymn inhibitor

IT Polycarbodiimides
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, Li complexes, hexafluorophosphate-containing; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polyoxyalkylenes, uses
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, carbodiimide or urethodione derivs., Li complexes, hexafluorophosphate-containing; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(acrylic, carbodiimide or urethodione derivs.; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polyoxyalkylenes, uses
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polycarbodiimide-, Li complexes, hexafluorophosphate-containing; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(acrylic-polycarbodiimide-; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polycarbodiimides
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-, Li complexes, hexafluorophosphate-containing; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polycarbodiimides
RL: IMF (Industrial manufacture); PREP (Preparation)
(acrylic-polyoxyalkylene-; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polycarbodiimides
RL: IMF (Industrial manufacture); PREP (Preparation)
(acrylic; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Capacitors

(double layer; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Secondary batteries
(lithium; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Battery **electrolytes**
Crosslinking agents
Electrolytic capacitors
Gels
Ionic conductors
Polymer **electrolytes**
Secondary battery separators
(manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polyisocyanurates
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polycarbodiimide-, acrylic, Li complexes, hexafluorophosphate-containing; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polyisocyanurates
RL: IMF (Industrial manufacture); PREP (Preparation)
(polycarbodiimide-, acrylic; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polycarbodiimides
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyisocyanurate-, acrylic, Li complexes, hexafluorophosphate-containing; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT Polycarbodiimides
RL: IMF (Industrial manufacture); PREP (Preparation)
(polyisocyanurate-, acrylic; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 817619-88-8DP, tetraethylammonium complex, tetrafluoroborate-containing
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(double-layer capacitor **electrolyte**; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 817619-89-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(film; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 101-68-8DP, carbodiimide or urethodione with dimethyl(isopropenyl)benzyl isocyanate homopolymer 822-06-0DP, Hexamethylene diisocyanate, carbodiimide or urethodione with methacryloyloxyethyl isocyanate homopolymer 88007-27-6DP, carbodiimide or urethodione derivative 95627-99-9DP, carbodiimide or urethodione derivative 817619-73-1P 817619-74-2P 817619-75-3P 817619-77-5P 817619-78-6P 817619-79-7P 817619-80-0P 817619-81-1P 817619-82-2P 817619-83-3DP, carbodiimide or urethodione derivative
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 817619-67-3P 817619-69-5P 817619-71-9P 817619-72-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 79-41-4, Methacrylic acid, reactions 30674-80-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 7439-93-2DP, Lithium, complex with carbodimide-containing polymers, hexafluorophosphate-containing 817619-74-2DP, Li complex, hexafluorophosphate-containing 817619-79-7DP, Li complex, hexafluorophosphate-containing 817619-80-0DP, Li complex, hexafluorophosphate-containing 817619-81-1DP, Li complex, hexafluorophosphate-containing 817619-82-2DP, Li complex, hexafluorophosphate-containing 817619-84-4DP, Li complex, hexafluorophosphate-containing 817619-85-5DP, Li complex, hexafluorophosphate-containing 817619-86-6DP, carbodiimide or urethodione derivative, Li complex, hexafluorophosphate-containing 817619-87-7DP, Li complex, hexafluorophosphate-containing
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(secondary Li battery **electrolyte**; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT **817619-90-2DP**, Li complex, hexafluorophosphate-containing
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(secondary Li battery separator and **electrolyte**; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 100-02-7, p-Nitrophenol, uses
RL: CAT (Catalyst use); USES (Uses)
(thermal polymerization inhibitor for carbodiimidization of isocyanates; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT 817619-91-3P 817619-92-4P
RL: IMF (Industrial manufacture); PREP (Preparation)
(water dispersion; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

IT **817619-90-2DP**, Li complex, hexafluorophosphate-containing
RL: DEV (Device component use); IMF (Industrial manufacture); TEM

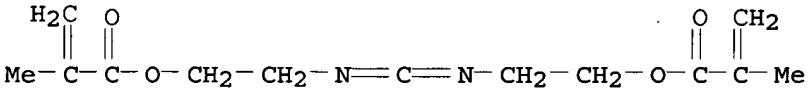
(Technical or engineered material use); PREP (Preparation); USES (Uses)
(secondary Li battery separator and **electrolyte**; manufacture of double bond-containing carbodimides and urethodiones as **crosslinking** agents for **crosslinked** polymer gels as ionic conductors for electrochem. devices)

RN 817619-90-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methanetetraylbis(nitrilo-2,1-ethanediyl) ester, polymer with ethene, α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl) and (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl tri-2-propenoate, graft (9CI) (CA INDEX NAME)

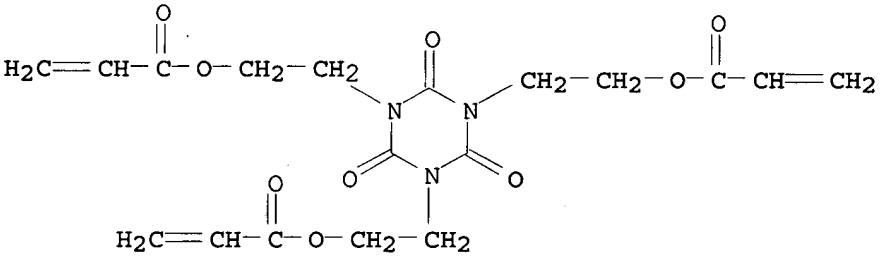
CM 1

CRN 817619-67-3
CMF C13 H18 N2 O4



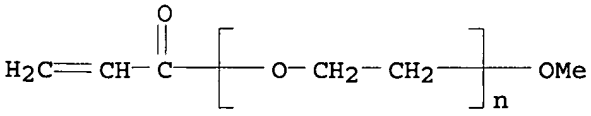
CM 2

CRN 40220-08-4
CMF C18 H21 N3 O9



CM 3

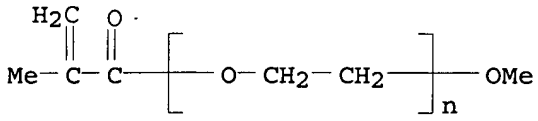
CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 4

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 5

CRN 74-85-1
CMF C2 H4

$H_2C{=}CH_2$

L31 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:470551 HCAPLUS
DN 141:24797
TI Delamination- and heat-resistant laminates, their manufacture, and packaging materials using them
IN Suzuta, Masayoshi; Kurosawa, Akio
PA Toppan Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004160766	A2	20040610	JP 2002-327847	20021112 <--
PRAI	JP 2002-327847		20021112 <--		

AB The laminates, useful for packaging of Li batteries, etc., are manufactured by extrusion of reactive group-grafted thermoplastic resins, lamination on base materials, and hot rolling at temperature ≥10° higher than the m.p. of the resins. Thus, a boehmite-treated Al film was laminated with a blend of methacryloyloxyethyl isocyanate-grafted ethylene-1-octene copolymer and ethylene-1-hexene copolymer, dry-laminated with a polyamide, and made into a pouch showing good heat-seal strength and lamination strength even after storage with an **electrolyte** solution or a turf fungicide at 40° for 4 wk.
IC ICM B29C047-88
ICS B29C047-02; B32B015-08; B32B027-32; B65D065-40; C08F255-00; H01M002-02; B65D030-02; B29L009-00
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 5, 52
ST laminate packaging delamination resistant graft thermoplastic; battery **electrolyte** packaging laminate polyolefin graft; turf fungicide packaging laminate ethylene copolymer
IT Battery **electrolytes**
Laminated materials
(packaging; delamination- and heat-resistant laminates for packaging materials)
IT 115-07-1DP, Propylene, block polymers, grafted with functional group-containing methacrylates **189679-96-7P**, Ethylene-glycidyl

methacrylate-1-octene graft copolymer 220772-59-8P, Ethylene-methacryloyloxyethyl isocyanate-1-octene graft copolymer 500785-61-5P, Ethylene-methacryloyloxypropyltrimethoxysilane-1-octene graft copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(delamination- and heat-resistant laminates for packaging materials)

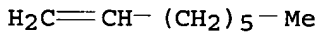
IT **189679-96-7P**, Ethylene-glycidyl methacrylate-1-octene graft copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(delamination- and heat-resistant laminates for packaging materials)

RN 189679-96-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene and 1-octene, graft (9CI) (CA INDEX NAME)

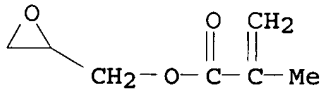
CM 1

CRN 111-66-0
CMF C8 H16



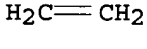
CM 2

CRN 106-91-2
CMF C7 H10 O3



CM 3

CRN 74-85-1
CMF C2 H4



L31 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:330299 HCAPLUS

DN 140:340424

TI Manufacture of polyolefins containing less carboxylic acid residues for polymer **electrolytes**

IN Iwase, Yoshiyuki; Nishijima, Koichi; Ogasawara, Hiroshi; Kutsuwa, Yoshikazu

PA Du Pont-Mitsui Polychemicals Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004123872	A2	20040422	JP 2002-289016	20021001 <--
PRAI	JP 2002-289016		20021001 <--		

AB In the process, ethylene-unsatd. carboxylic acid copolymers are esterified with monohydroxy-terminated polyalkylene oxides and then reacted at residual carboxylic acids with end-capping agents to afford the claimed polyolefins useful for gel-type polymer batteries or capacitors. Thus, acrylic acid-ethylene copolymer (OH/carboxyl molar ratio 2.0) was esterified with polyethylene glycol monomethyl ether and then with benzoic acid to exhibit residual carboxylic acid 1.90% and high solubility in ethylene carbonate/propylene carbonate solvent after 6-mo storage at room temperature

IC ICM C08G081-02
ICS H01B013-00; H01M010-40

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 52, 76

ST esterified endcapped residual carboxylic polyolefin **electrolyte**; durable polymer **electrolyte** residual acid minimized

IT Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft, lower alkyl esters; manufacture of polyolefins containing less carboxylic acid residues for polymer **electrolytes**)

IT Capacitors
(**electrolytes** for; manufacture of polyolefins containing less carboxylic acid residues for polymer **electrolytes**)

IT Battery **electrolytes**
Polymer **electrolytes**
(manufacture of polyolefins containing less carboxylic acid residues for polymer **electrolytes**)

IT 103-71-9, Phenyl isocyanate, reactions 111-26-2, n-Hexylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation agents; manufacture of polyolefins containing less carboxylic acid residues for polymer **electrolytes**)

IT **680624-10-6DP**, butylated **680972-65-0P**, Acrylic acid-ethylene-Uniox M 550 graft copolymer benzoate **680972-66-1P**, Acrylic acid-ethylene-oxirane graft copolymer methyl ether benzoate **680972-67-2DP**, Acrylic acid-ethylene-oxirane graft copolymer methyl ether sodium salt, butylated
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of polyolefins containing less carboxylic acid residues for polymer **electrolytes**)

IT **680624-10-6DP**, butylated **680972-65-0P**, Acrylic acid-ethylene-Uniox M 550 graft copolymer benzoate **680972-66-1P**, Acrylic acid-ethylene-oxirane graft copolymer methyl ether benzoate **680972-67-2DP**, Acrylic acid-ethylene-oxirane graft copolymer methyl ether sodium salt, butylated
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of polyolefins containing less carboxylic acid residues for polymer **electrolytes**)

RN 680624-10-6 HCAPLUS

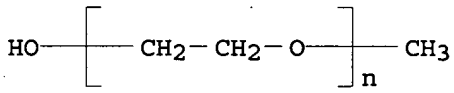
CN 2-Propenoic acid, polymer with ethene and α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 680624-09-3
CMF (C3 H4 O2 . (C2 H4 O)n C H4 O . C2 H4)x
CCI PMS

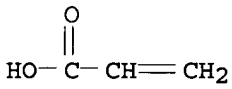
CM 2

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



CM 3

CRN 79-10-7
CMF C3 H4 O2



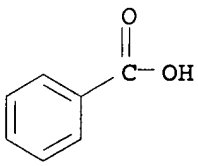
CM 4

CRN 74-85-1
CMF C2 H4

RN 680972-65-0 HCAPLUS
CN 2-Propenoic acid, polymer with ethene and α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), benzoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 65-85-0
CMF C7 H6 O2

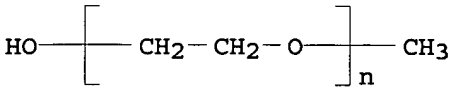


CM 2

CRN 680624-09-3
CMF (C3 H4 O2 . (C2 H4 O)n C H4 O . C2 H4)x
CCI PMS

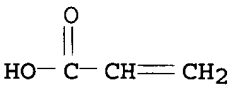
CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



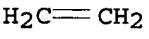
CM 4

CRN 79-10-7
CMF C3 H4 O2



CM 5

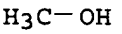
CRN 74-85-1
CMF C2 H4



RN 680972-66-1 HCAPLUS
CN 2-Propenoic acid, polymer with ethene and oxirane, benzoate, methyl ether, graft (9CI) (CA INDEX NAME)

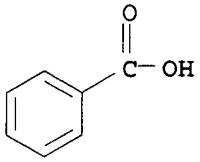
CM 1

CRN 67-56-1
CMF C H4 O



CM 2

CRN 65-85-0
CMF C7 H6 O2

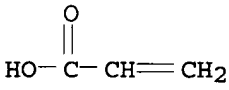


CM 3

CRN 196413-49-7
CMF (C3 H4 O2 . C2 H4 O . C2 H4)x
CCI PMS

CM 4

CRN 79-10-7
CMF C3 H4 O2



CM 5

CRN 75-21-8
CMF C2 H4 O

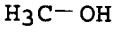
CM 6

CRN 74-85-1
CMF C2 H4

RN 680972-67-2 HCAPLUS
CN 2-Propenoic acid, polymer with ethene and oxirane, methyl ether, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

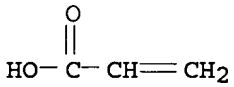


CM 2

CRN 196413-49-7
CMF (C3 H4 O2 . C2 H4 O . C2 H4)x
CCI PMS

CM 3

CRN 79-10-7
CMF C3 H4 O2

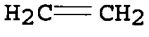


CM 4

CRN 75-21-8
CMF C2 H4 O

CM 5

CRN 74-85-1
CMF C2 H4



L31 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:159965 HCAPLUS
DN 140:184769
TI Water vapor-barrier battery cases for sealed secondary batteries
IN Moritomi, Satoru; Yamaguchi, Takazo
PA Sumitomo Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004063302	A2	20040226	JP 2002-220868	20020730 <--
PRAI JP 2002-220868		20020730 <--		

AB The cases have layers containing liquid crystalline polymers showing optical anisotropy during melting. The liquid crystalline polymers may be compns. having continuous phases of liquid crystalline polyesters and dispersion phases of copolymers having functional groups (e.g., oxazolyl, epoxy, amino)

reactive to the polyesters. Preferably, the cases have laminates of the above layers and layers containing thermoplastic resins, e.g., polyolefins. The cases prevent evaporation of water in **electrolytic** solns. and prolong battery life.

IC ICM H01M002-02
ICS C08G081-00

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

IT **51541-08-3P**, Ethylene-glycidyl methacrylate-methyl acrylate copolymer
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(rubber, liquid crystalline layer containing; water vapor-barrier battery cases
having liquid crystalline polymer layers for sealed secondary batteries)

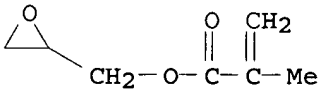
IT **51541-08-3P**, Ethylene-glycidyl methacrylate-methyl acrylate copolymer
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(rubber, liquid crystalline layer containing; water vapor-barrier battery cases
having liquid crystalline polymer layers for sealed secondary batteries)

RN 51541-08-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene and methyl 2-propenoate (9CI) (CA INDEX NAME)

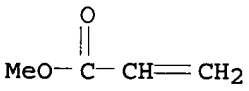
CM 1

CRN 106-91-2
CMF C7 H10 O3



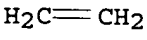
CM 2

CRN 96-33-3
CMF C4 H6 O2



CM 3

CRN 74-85-1
CMF C2 H4



L31 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:719337 HCAPLUS
DN 139:229682
TI Heat-sterilization of a packaged product and the heat-treated packaged product
IN Yamane, Kazuyuki; Kawakami, Yukichika; Wakamatsu, Akiko; Yasuda, Matsuo; Tanaka, Mikio
PA Kureha Chemical Industry Company, Limited, Japan
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003074092	A1	20030912	WO 2003-JP2431	20030303 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003210006	A1	20030916	AU 2003-210006	20030303 <--
	EP 1480684	A1	20041201	EP 2003-743554	20030303 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2005106346	A1	20050519	US 2003-506571	20030303 <--
	JP 2005519824	T2	20050707	JP 2003-579525	20030303 <--
	CN 1638812	A	20050713	CN 2003-804807	20030303 <--
PRAI	JP 2002-57629	A	20020304 <--		
	WO 2003-JP2431	W	20030303 <--		

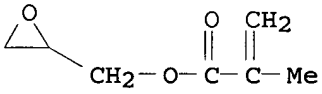
AB A packaged product formed by enclosing a content material, such as food or beverage, sanitary products or medical products, within a packaging material including at least a layer of hydrophilic resin, is heat-treated with hot water for, e.g., boil sterilization or retort sterilization. The hot water is caused to contain a water-soluble compound in an amount substantially exceeding a level contained in tap water, whereby it becomes possible to suppress the opalescence of the packaging material causing inferior appearance or transparency and leading to a lowering in gas-barrier property, which has been problematic in the conventional boil or retort hot water treatment.

IC ICM A61L002-04
ICS A23L003-02; A23L003-10; B65B055-10; A23B004-005; A23C003-023; A61L002-26
CC 17-4 (Food and Feed Chemistry)
Section cross-reference(s): 62, 63
IT Beverages
Cosmetics
Drugs
Electrolytes
Food packaging materials
Food preservation
Food processing
Packaging materials
Sterilization and Disinfection
(heat-sterilization of a packaged product and the heat-treated packaged

product)
IT 9003-07-0, Novatec FY6C 9010-79-1, Propylene-ethylene copolymer 24937-78-8, Evaflex V-527-4 24993-04-2, Amilan CM6001XF 25035-04-5, Rilsan Besvoafda 25067-34-9, Soarnol E 3803B **26061-90-5**, Rexpearl Ra3150 26124-68-5, Polyglycolic acid 26221-73-8, Moretec V 0398CN 135373-05-6, Admer VF500 220181-18-0, Admer QB550 236738-49-1, Admer NF528 595570-75-5 595580-02-2, Supernyl SPR 8H 595580-08-8, Pairflex Sheet FA 292N
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heat-sterilization of a packaged product and the heat-treated packaged product)
IT **26061-90-5**, Rexpearl Ra3150
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heat-sterilization of a packaged product and the heat-treated packaged product)
RN 26061-90-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 74-85-1
CMF C2 H4

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:335197 HCAPLUS
DN 138:339113
TI Polyphenylene sulfide resin composition with good toughness and weld strength
IN Akiyama, Yoshikuni; Sakata, Minoru; Minonishi, Kuniaki
PA Asahi Kasei Kabushiki Kaisha, Japan; Asahi Kasei Chemicals Corporation
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003035760	A2	20030501	WO 2001-JP9399	20011025 <--

WO 2003035760 A3 20041223
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1508595 A2 20050223 EP 2001-978917 20011025 <--
R: AT, BE, DE, FR
CN 1620480 A 20050525 CN 2001-823737 20011025 <--
US 2004266951 A1 20041230 US 2004-492930 20040419 <--
PRAI WO 2001-JP9399 W 20011025 <--

AB Title composition comprises (A) a polyphenylene sulfide resin having a specific oligomer amount and a specific functional group amount, (B) a noncryst. thermoplastic resin having a glass transition temperature ≥120°, (C) and a compatibilizing agent having a specific functional group amount Use of this polyphenylene sulfide resin composition as a case material for a secondary battery enables the initial **electrolyte** performance to last over long. Thus, a composition comprising polyphenylene sulfide with melt viscosity at 300° and 20 kgf/cm2 load 500 P, amount oligomer extract in methylene chloride 0.4%, and SX (S = sulfur and X = metal or H) group content 29 μmol/g 71, polyphenylene ether with glass transition temperature 209° and reduced viscosity 0.54 29, styrene-glycidyl methacrylate copolymer with weight average mol. weight 110,000 3.5, and hydrogenated styrene-butadiene triblock copolymer 17.6 parts was kneaded and injection-molded to give a test piece with heat distortion temperature 135°, tensile strength 53 MPa, Izod impact resistance 137 J/m, weld tensile strength 52 MPa, and weld strength restion ratio 98%.

IC ICM C08L081-02
ICS H01M002-02

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 52

IT 24938-67-8, 2,6-Xylenol homopolymer, sru 25134-01-4, 2,6-Xylenol homopolymer **26061-90-5**, Bondfast 2C
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blend with polyphenylene sulfide; polyphenylene sulfide resin composition with good toughness and weld strength)

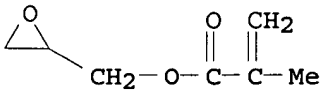
IT **26061-90-5**, Bondfast 2C
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(blend with polyphenylene sulfide; polyphenylene sulfide resin composition with good toughness and weld strength)

RN 26061-90-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 74-85-1
CMF C2 H4

$H_2C{=}CH_2$

L31 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:317760 HCAPLUS
DN 138:341090
TI Polymer gel **electrolyte** composition and its manufacture
IN Maruyama, Kunio; Miyagawa, Shinji; Yamaguchi, Shuichiro; Koyama, Noboru
PA Shirouma Science Co., Ltd., Japan; Fuji Heavy Industries Ltd.; Chemipro Kasei Ltd.; Mitsui and Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003123842	A2	20030425	JP 2001-322319	20011019 <--
	WO 2003036656	A1	20030501	WO 2002-JP10746	20021016 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	TW 593498	B	20040621	TW 2002-91124118	20021018 <--
	US 2004197662	A1	20041007	US 2004-828468	20040419 <--
PRAI	JP 2001-322319	A	20011019 <--		
	WO 2002-JP10746	A1	20021016 <--		

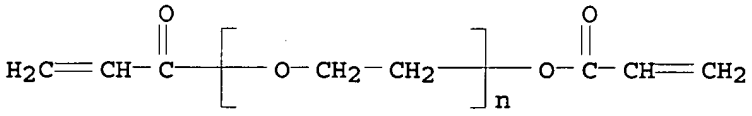
AB The **electrolyte** composition, useful for electrochem. devices, has a 3-dimensional **crosslinked** structure of a **crosslinked** polymer network matrix in a mixed nonaq. solvent **electrolyte** solution, and a non-**crosslinked** polymer contained in the matrix; where the non-**crosslinked** polymer contains an ethylene unit and/or an propylene unit, and an unsatd. carboxylic acid obtained by esterizing a carboxyl group with a polyalkylene glycol protected by a hydroxyl group at its one end. The **electrolyte** composition is manufactured by dissolving the non-**crosslinked** polymer in the mixed nonaq. solvent **electrolyte** solution, adding a **crosslinkable** monomer to the mixture; and polymerizing the monomer with the mixture
IC ICM H01M010-40
ICS C08G081-02; C08L023-26; C08L101-02; H01B001-06; H01G009-025;

H01G009-032
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
ST battery polymer gel **electrolyte** compn manuf
IT Battery **electrolytes**
Polymer **electrolytes**
(compns. and manufacture of polymer gel **electrolytes** for electrochem. devices)
IT **518044-75-2P**, Acrylic acid-ethylene copolymer, ester with polyethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate **518044-77-4P**, Ethylene-methacrylic acid copolymer, ester with ethylene glycol monoethyl ether, polymer with polyethylene glycol diacrylate **518044-79-6P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with N-methylol methacrylamide **518044-81-0P**, Ethylene-methacrylic acid copolymer, ester with ethylene glycol monoethyl ether, polymer with 3-hydroxyethyl methacrylate **518044-82-1P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with glycidyl acrylate **518044-83-2P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 4,4'-diphenyl diisocyanate **518044-84-3P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with triphenyl methane triisocyanate **518044-86-5P**, Ethylene-mathacrylic acid-propylene copolymer, ester with ethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(compns. and manufacture of polymer gel **electrolytes** for electrochem. devices)
IT 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 111-46-6, Diethylene glycol, uses 616-38-6, Dimethyl carbonate 623-53-0, Methyl ethyl carbonate 14283-07-9, Lithium tetrafluoroborate 21324-40-3, Lithium hexafluorophosphate **518044-78-5**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 1,6-hexanediol dimethacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(compns. and manufacture of polymer gel **electrolytes** for electrochem. devices)
IT **518044-75-2P**, Acrylic acid-ethylene copolymer, ester with polyethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate **518044-77-4P**, Ethylene-methacrylic acid copolymer, ester with ethylene glycol monoethyl ether, polymer with polyethylene glycol diacrylate **518044-79-6P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with N-methylol methacrylamide **518044-81-0P**, Ethylene-methacrylic acid copolymer, ester with ethylene glycol monoethyl ether, polymer with 3-hydroxyethyl methacrylate **518044-82-1P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with glycidyl acrylate **518044-83-2P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 4,4'-diphenyl diisocyanate **518044-84-3P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with triphenyl methane triisocyanate **518044-86-5P**, Ethylene-mathacrylic acid-propylene copolymer, ester with ethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(compns. and manufacture of polymer gel **electrolytes** for electrochem. devices)
RN 518044-75-2 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-

hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS

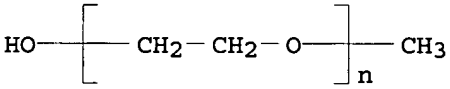


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

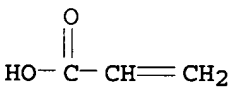


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

CM 5

CRN 79-10-7
CMF C3 H4 O2



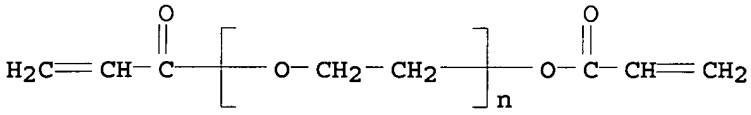
CM 6

CRN 74-85-1
CMF C2 H4

RN 518044-77-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS

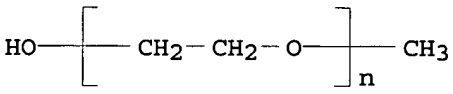


CM 2

CRN 518044-76-3
CMF (C4 H6 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

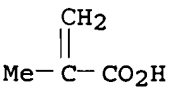


CM 4

CRN 25053-53-6
CMF (C4 H6 O2 . C2 H4)x
CCI PMS

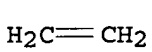
CM 5

CRN 79-41-4
CMF C4 H6 O2



CM 6

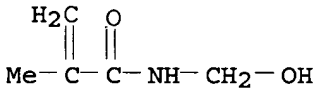
CRN 74-85-1
CMF C2 H4



RN 518044-79-6 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with N-(hydroxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 923-02-4
CMF C5 H9 N O2

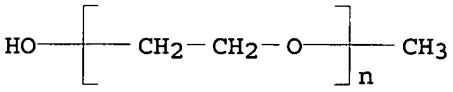


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

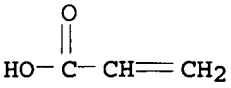


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

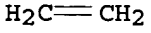
CM 5

CRN 79-10-7
CMF C3 H4 O2



CM 6

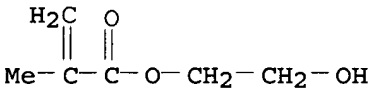
CRN 74-85-1
CMF C2 H4



RN 518044-81-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9
CMF C6 H10 O3

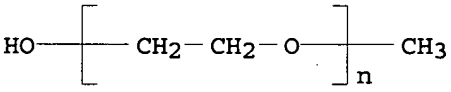


CM 2

CRN 518044-76-3
CMF (C4 H6 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

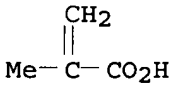


CM 4

CRN 25053-53-6
CMF (C4 H6 O2 . C2 H4)x
CCI PMS

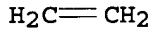
CM 5

CRN 79-41-4
CMF C4 H6 O2



CM 6

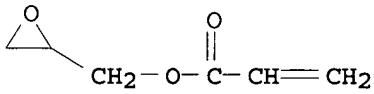
CRN 74-85-1
CMF C2 H4



RN 518044-82-1 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with oxiranylmethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 106-90-1
CMF C6 H8 O3

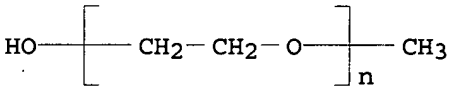


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



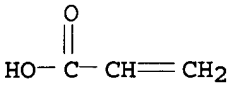
CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

CM 5

CRN 79-10-7

CMF C3 H4 O2



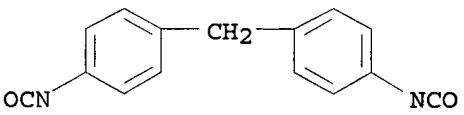
CM 6

CRN 74-85-1
CMF C2 H4

RN 518044-83-2 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 101-68-8
CMF C15 H10 N2 O2

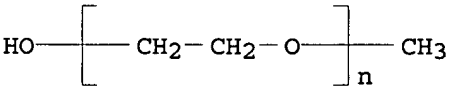


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

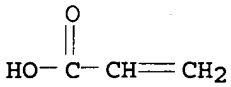


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

CM 5

CRN 79-10-7
CMF C3 H4 O2



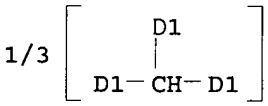
CM 6

CRN 74-85-1
CMF C2 H4

RN 518044-84-3 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with 1,1',1''-methylidynetris[isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 25656-78-4
CMF C22 H13 N3 O3
CCI IDS

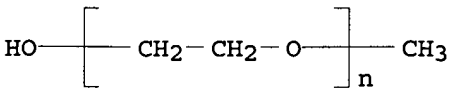


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

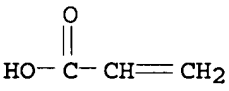


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

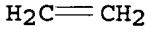
CM 5

CRN 79-10-7
CMF C3 H4 O2



CM 6

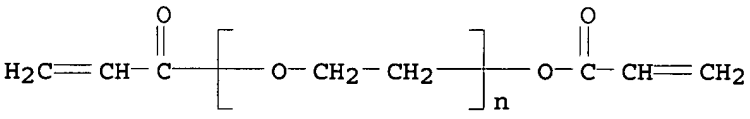
CRN 74-85-1
CMF C2 H4



RN 518044-86-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethene and propene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS

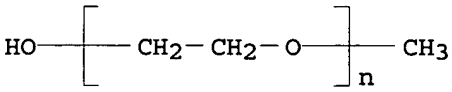


CM 2

CRN 518044-85-4
CMF (C4 H6 O2 . C3 H6 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

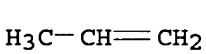


CM 4

CRN 28433-68-3
CMF (C4 H6 O2 . C3 H6 . C2 H4)x
CCI PMS

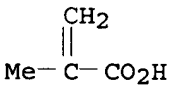
CM 5

CRN 115-07-1
CMF C3 H6



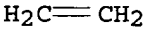
CM 6

CRN 79-41-4
CMF C4 H6 O2



CM 7

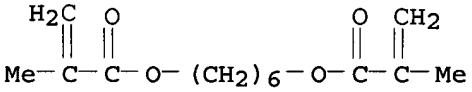
CRN 74-85-1
CMF C2 H4



IT **518044-78-5**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 1,6-hexanediol dimethacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(compns. and manufacture of polymer gel **electrolytes** for electrochem. devices)
RN 518044-78-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester, polymer with ethene graft polymer with 2-propenoic acid ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 6606-59-3
CMF C14 H22 O4

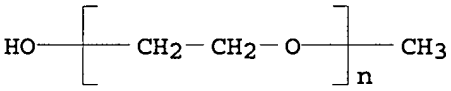


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

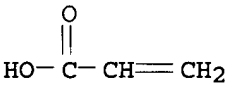


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

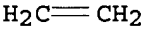
CM 5

CRN 79-10-7
CMF C3 H4 O2



CM 6

CRN 74-85-1
CMF C2 H4



L31 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:315264 HCAPLUS

DN 136:343316
TI Gel-type polymer **electrolyte** that can be molded to a self-supported film for lithium batteries
IN Oyama, Noboru; Fujimoto, Yuki; Iwase, Yoshiyuki; Nishijima, Kouichi
PA Du Pont-Mitsui Polychemicals Co., Ltd., Japan
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002033765	A2	20020425	WO 2001-JP9138	20011018 <--
	WO 2002033765	A3	20031002		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2426129	AA	20020425	CA 2001-2426129	20011018 <--
	JP 2002198095	A2	20020712	JP 2001-320319	20011018 <--
	EP 1368849	A2	20031210	EP 2001-976730	20011018 <--
	EP 1368849	B1	20060405		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1555589	A	20041215	CN 2001-820726	20011018 <--
PRAI	JP 2000-318169	A	20001018 <--		
	WO 2001-JP9138	W	20011018 <--		

AB In a gel-type polymer **electrolyte**, the polymer comprises (a) an ethylene-unsatd. carboxylic acid copolymer or a derivative thereof and (b) a polyalkylene oxide having a hydroxyl group at one terminal thereof or a derivative thereof, which are bonded together by an ester bond. The gel-type polymer **electrolyte** has a high ionic conductivity, and makes it possible to provide a cell which has excellent charge/discharge characteristics at low temps. as well as at high temps.

IC ICM H01M
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38, 76
ST lithium battery gel type polymer **electrolyte**
IT Battery **electrolytes**
Capacitors
Ionic conductivity
Swelling, physical
Transesterification
(gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)
IT Polyoxyalkylenes, uses
RL: DEV (Device component use); USES (Uses)
(gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)
IT Secondary batteries
(lithium; gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)
IT Alcohols, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

(polyhydric, **crosslinking** agent; gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

IT Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(unsatd., **crosslinking** agent; gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

IT Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(unsatd., esters, **crosslinking** agent; gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

IT 79-41-4, Methacrylic acid, reactions 18358-13-9, Methacrylate, reactions 25721-76-0, Polyethylene glycol dimethacrylate 26403-72-5, Polyethylene glycol diglycidyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(**crosslinking** agent; gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

IT 96-48-0, γ-Butyrolactone 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 110-71-4 616-38-6, Dimethyl carbonate 872-50-4, n-Methylpyrrolidone, uses 14283-07-9, Lithium tetrafluoroborate 21324-40-3, Lithium hexafluorophosphate 35895-69-3, Tetraethylammonium trifluoromethanesulfonate
RL: DEV (Device component use); USES (Uses)
(gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

IT 9004-74-4DP, Polyethylene glycol monomethyl ether, reaction product of acrylic acid-ethylene copolymer 172588-43-1DP, Ethylene glycol-propylene glycol mono-2-ethylhexyl ether block copolymer, reaction products with acrylic acid-ethylene copolymer **177569-35-6DP**, reaction product polyethylene glycol monomethyl ether **177569-35-6DP**, reaction products with acrylic acid-ethylene copolymer **196521-53-6DP**, reaction products with acrylic acid-ethylene copolymer
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

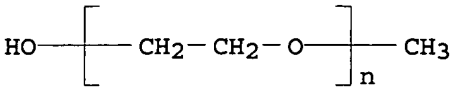
IT 104-15-4, p-Toluenesulfonic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

IT **177569-35-6DP**, reaction product polyethylene glycol monomethyl ether **196521-53-6DP**, reaction products with acrylic acid-ethylene copolymer
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(gel-type polymer **electrolyte** that can be molded to self-supported film for lithium batteries)

RN 177569-35-6 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

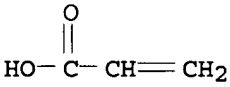


CM 2

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

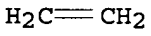
CM 3

CRN 79-10-7
CMF C3 H4 O2



CM 4

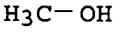
CRN 74-85-1
CMF C2 H4



RN 196521-53-6 HCAPLUS
CN 2-Propenoic acid, polymer with ethene and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1
CMF C H4 O

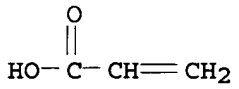


CM 2

CRN 196413-49-7
CMF (C3 H4 O2 . C2 H4 O . C2 H4)x
CCI PMS

CM 3

CRN 79-10-7
CMF C3 H4 O2



CM 4

CRN 75-21-8
CMF C2 H4 O

CM 5

CRN 74-85-1
CMF C2 H4

L31 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:545760 HCAPLUS
DN 135:137856
TI Olefin block copolymers with linking groups, production processes of the same and use thereof
IN Ota, Seiji; Moriya, Satoru; Mori, Ryoji; Koda, Taku; Tan, Junji; Kojoh, Shinichi; Kaneko, Hideyuki; Hama, Shunichi; Nobori, Tadahito; Matsugi, Tomoaki; Kashiwa, Norio
PA Mitsui Chemicals, Inc., Japan
SO PCT Int. Appl., 563 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001053369	A1	20010726	WO 2001-JP298	20010118 <--
	W: CN, KR, SG, US				
	RW: DE, FR, GB				
	JP 2002097237	A2	20020402	JP 2000-288181	20000922 <--
	EP 1275670	A1	20030115	EP 2001-942647	20010118 <--
	EP 1275670	B1	20050810		
	R: DE, FR, GB				
	JP 2001278928	A2	20011010	JP 2001-16069	20010124 <--
	JP 2001278929	A2	20011010	JP 2001-16070	20010124 <--
	JP 2001278930	A2	20011010	JP 2001-18285	20010126 <--
	JP 2001278931	A2	20011010	JP 2001-18299	20010126 <--
	JP 2001278932	A2	20011010	JP 2001-18300	20010126 <--
	JP 2001288443	A2	20011016	JP 2001-25809	20010201 <--
	JP 2001288372	A2	20011016	JP 2001-25810	20010201 <--
	JP 2001288272	A2	20011016	JP 2001-25811	20010201 <--
	JP 2001342256	A2	20011211	JP 2001-76944	20010316 <--

	JP 2001348413	A2	20011218	JP 2001-106007	20010404 <--
	JP 2002012639	A2	20020115	JP 2001-106006	20010404 <--
	JP 2002037825	A2	20020206	JP 2001-141562	20010511 <--
	JP 2002053632	A2	20020219	JP 2001-141561	20010511 <--
	US 2003055179	A1	20030320	US 2002-181553	20020719 <--
PRAI	JP 2000-17848	A	20000121 <--		
	JP 2000-17849	A	20000121 <--		
	JP 2000-17850	A	20000121 <--		
	JP 2000-18053	A	20000125 <--		
	JP 2000-18054	A	20000125 <--		
	JP 2000-23333	A	20000127 <--		
	JP 2000-24736	A	20000128 <--		
	JP 2000-24737	A	20000128 <--		
	JP 2000-28924	A	20000201 <--		
	JP 2000-28925	A	20000201 <--		
	JP 2000-28926	A	20000201 <--		
	JP 2000-90716	A	20000327 <--		
	JP 2000-111900	A	20000407 <--		
	JP 2000-132859	A	20000427 <--		
	JP 2000-147500	A	20000515 <--		
	JP 2000-166470	A	20000531 <--		
	JP 2000-288181	A	20000922 <--		
	WO 2001-JP298	W	20010118 <--		

AB The olefin block copolymers have excellent in affinity with metal, polar resins or the like, impact resistance, mar resistance, thermal resistance, rigidity, oil resistance, transparency, antifogging properties, elec. insulation properties, breakdown voltage, application properties, low-temperature flexibility, moldability, environmental degradation properties, fluidity and/or dispersion properties. The block copolymers are of PO1-g1-B1 type (wherein PO1 is a segment composed of repeating units derived from C2-20 olefin; g1 is an ester, ether, amide, imide, urethane, urea, silyl ether, or carbonyl linkage; and B1 is an unsatd. hydrocarbon or heteroatom-containing segment), and are useful for hot-melt adhesives, moldings, modifiers for plastics and rubbers, etc. Thus, a copolymer with O linking group was prepared, e.g., by metallocene polymerization of ethylene with norbornene, followed by converting the resulting single-end unsatd. group-terminated copolymer to a B-terminated copolymer using 9-BBN (9-borabicyclononane), and block copolymn. in THF with styrene in the presence of O.

IC C08F293-00; C08G081-00; C08L053-00; C08L101-00

CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 39

IT Boronizing
Bottles
Coating materials
Containers
Inks
Oxidation
Pipes and Tubes
Plastic films
Polymer **electrolytes**
Sealing compositions
Transparent materials
(polymer end conversion in manufacture of olefin diblock copolymers for use in plastics and rubbers)

IT 350846-86-5P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**crosslinked**; olefinic polymer end conversion in manufacture of block copolymers and various uses in plastics and rubbers)

IT 126140-91-8P, Ethylene-ethylene oxide block copolymer 127471-92-5P, Maleic anhydride-propylene-styrene block copolymer 188448-09-1P, Ethylene-methyl methacrylate-propylene block copolymer 350846-74-1P 350846-75-2P 350846-76-3P **350846-77-4P** 350846-78-5P **351471-95-9DP**, amine-terminated 718637-95-7P 729589-59-7P **733035-84-2DP**, amine-terminated 733036-88-9P **733036-90-3P** 733037-64-4P 733037-66-6P 733037-80-4P 737795-80-1P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(diblock; olefinic polymer end conversion in manufacture of block copolymers and various uses in plastics and rubbers)

IT 110341-23-6P, Methyl methacrylate-propylene block copolymer 141551-66-8P, ε-Caprolactone-ethylene block copolymer 185630-55-1P, Ethyl methacrylate-propylene block copolymer 185630-56-2P, Butyl acrylate-propylene block copolymer 330665-83-3P, Butyl acrylate-ethylene block copolymer **350846-83-2P** 350846-85-4P 350846-87-6P 350846-88-7P 350846-89-8P 350846-90-1P 350846-91-2P 351471-97-1P, Ethylene-methyl methacrylate-1-octene block copolymer 351471-98-2P 351471-99-3P 351472-00-9P **351472-01-0P** 351472-02-1P 731774-35-9P **731774-40-6P** 731842-58-3P 733035-24-0P 733035-27-3P 733035-76-2P 733035-86-4P 733035-87-5P 733035-93-3P 733035-96-6P 733036-06-1P 733036-15-2P **733036-85-6P** 733038-31-8P 736998-02-0P 736998-15-5P 743421-29-6P 790684-53-6P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(diblock; olefinic polymer end conversion in manufacture of block copolymers and various uses in plastics and rubbers)

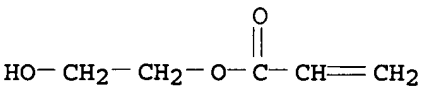
IT **350846-82-1P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(triblock, star, 4-arm; olefinic polymer end conversion in manufacture of block copolymers and various uses in plastics and rubbers)

IT **350846-77-4P 351471-95-9DP**, amine-terminated **733035-84-2DP**, amine-terminated **733036-90-3P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(diblock; olefinic polymer end conversion in manufacture of block copolymers and various uses in plastics and rubbers)

RN 350846-77-4 HCAPLUS
CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with ethene and 1-hexene, block (9CI) (CA INDEX NAME)

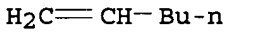
CM 1

CRN 818-61-1
CMF C5 H8 O3



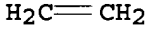
CM 2

CRN 592-41-6
CMF C6 H12



CM 3

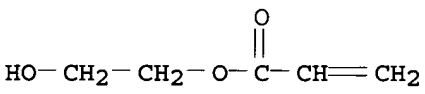
CRN 74-85-1
CMF C2 H4



RN 351471-95-9 HCAPLUS
CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with ethene and 1-octene, block (9CI) (CA INDEX NAME)

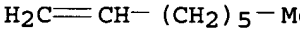
CM 1

CRN 818-61-1
CMF C5 H8 O3



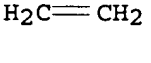
CM 2

CRN 111-66-0
CMF C8 H16



CM 3

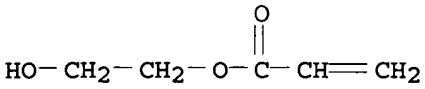
CRN 74-85-1
CMF C2 H4



RN 733035-84-2 HCAPLUS
CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with ethene and 1-octene, diblock (9CI) (CA INDEX NAME)

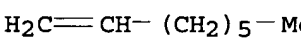
CM 1

CRN 818-61-1
CMF C5 H8 O3



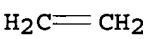
CM 2

CRN 111-66-0
CMF C8 H16



CM 3

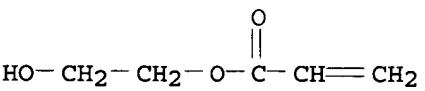
CRN 74-85-1
CMF C2 H4



RN 733036-90-3 HCAPLUS
CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with ethene and 1-hexene, diblock (9CI) (CA INDEX NAME)

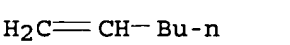
CM 1

CRN 818-61-1
CMF C5 H8 O3



CM 2

CRN 592-41-6
CMF C6 H12



CM 3

CRN 74-85-1

CMF C2 H4

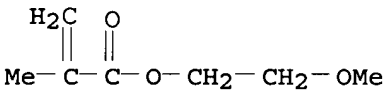
IT **350846-83-2P 351472-01-0P 731774-40-6P**
733036-85-6P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(diblock; olefinic polymer end conversion in manufacture of block copolymers and various uses in plastics and rubbers)

RN 350846-83-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methoxyethyl ester, polymer with methyl 2-methyl-2-propenoate and 1-propene, block (9CI) (CA INDEX NAME)

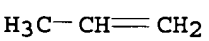
CM 1

CRN 6976-93-8
CMF C7 H12 O3



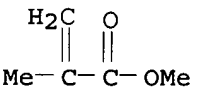
CM 2

CRN 115-07-1
CMF C3 H6



CM 3

CRN 80-62-6
CMF C5 H8 O2

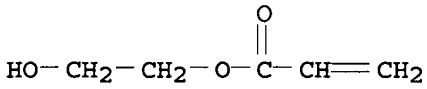


RN 351472-01-0 HCAPLUS

CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with 1-propene, block (9CI) (CA INDEX NAME)

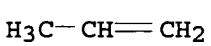
CM 1

CRN 818-61-1
CMF C5 H8 O3



CM 2

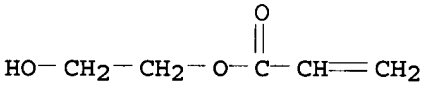
CRN 115-07-1
CMF C3 H6



RN 731774-40-6 HCAPLUS
CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with 1-propene, diblock (9CI) (CA INDEX NAME)

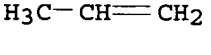
CM 1

CRN 818-61-1
CMF C5 H8 O3



CM 2

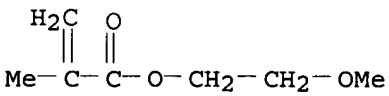
CRN 115-07-1
CMF C3 H6



RN 733036-85-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-methoxyethyl ester, polymer with methyl 2-methyl-2-propenoate and 1-propene, diblock (9CI) (CA INDEX NAME)

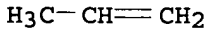
CM 1

CRN 6976-93-8
CMF C7 H12 O3



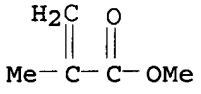
CM 2

CRN 115-07-1
CMF C3 H6



CM 3

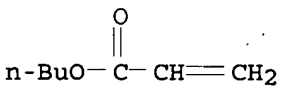
CRN 80-62-6
CMF C5 H8 O2



IT **350846-82-1P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(triblock, star, 4-arm; olefinic polymer end conversion in manufacture of block copolymers and various uses in plastics and rubbers)
RN 350846-82-1 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethene, oxirane and 1-propene, block (9CI) (CA INDEX NAME)

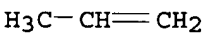
CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

CRN 115-07-1
CMF C3 H6



CM 3

CRN 75-21-8
CMF C2 H4 O

CM 4

CRN 74-85-1
CMF C2 H4

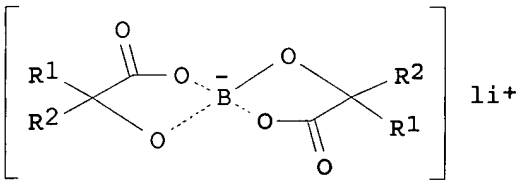
$H_2C{=}CH_2$

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:418095 HCAPLUS
DN 133:65226
TI Ion-conducting polyoxyalkylene-based **electrolyte** containing boron complex lithium salt
IN Takeda, Shoichi; Shindo, Nobumitsu
PA Japan Carlit Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000173343	A2	20000623	JP 1998-343040	19981202 <--
PRAI JP 1998-343040		19981202 <--		

OS MARPAT 133:65226
GI



I

AB The ion conductor **electrolyte** consists of a B complex Li salt I [R1 = H, C1-4 alkyl, (substituted) benzene ring, (substituted) naphthalene ring; R2 = (substituted) benzene ring, (substituted) naphthalene ring] and a polymer involving polyoxyalkylene segments. The **electrolyte** shows improved corrosion inhibition and heat resistance.
IC ICM H01B001-06
ICS C08K005-55; C08L055-00; C08L071-02; C07F005-02; C08F290-06; H01M006-18; H01M010-40
CC 72-3 (Electrochemistry)
Section cross-reference(s): 38, 52, 76
ST ion conducting polyoxyalkylene **electrolyte** corrosion inhibition; boron complex lithium salt doped polymer; heat resistance polyoxyalkylene **electrolyte**
IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylic; polyoxyalkylene containing boron complex lithium salt as ion-conducting **electrolyte** with improved heat resistance and corrosion inhibition)

IT Corrosion prevention
Heat-resistant materials
Polymer **electrolytes**
(polyoxyalkylene containing boron complex lithium salt as ion-conducting **electrolyte** with improved heat resistance and corrosion inhibition)

IT Coordination compounds
RL: MOA (Modifier or additive use); USES (Uses)
(polyoxyalkylene containing boron complex lithium salt as ion-conducting **electrolyte** with improved heat resistance and corrosion inhibition)

IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene containing boron complex lithium salt as ion-conducting **electrolyte** with improved heat resistance and corrosion inhibition)

IT 134587-71-6 166097-73-0 273929-21-8 276889-02-2
RL: MOA (Modifier or additive use); USES (Uses)
(polyoxyalkylene containing boron complex lithium salt as ion-conducting **electrolyte** with improved heat resistance and corrosion inhibition)

IT 9003-11-6, Ethylene oxide-propylene oxide copolymer 25322-68-3 25322-69-4, Polypropylene glycol 112344-11-3, Acrylic acid-ethylene oxide graft copolymer 146248-24-0, Ethylene-ethylene oxide-vinyl alcohol graft copolymer 273928-35-1, Crotonic acid-ethylene oxide graft copolymer 273928-36-2, Acrylic acid-crotonic acid-ethylene oxide-propylene oxide graft copolymer **276256-12-3**, Acrylic acid-ethylene-ethylene oxide-propylene oxide block graft copolymer 276889-55-5, Ethylene-ethylene oxide-propylene oxide-vinyl alcohol block graft copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene containing boron complex lithium salt as ion-conducting **electrolyte** with improved heat resistance and corrosion inhibition)

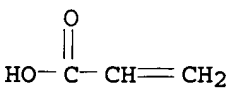
IT **276256-12-3**, Acrylic acid-ethylene-ethylene oxide-propylene oxide block graft copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene containing boron complex lithium salt as ion-conducting **electrolyte** with improved heat resistance and corrosion inhibition)

RN 276256-12-3 HCAPLUS

CN 2-Propenoic acid, polymer with ethene, methyloxirane and oxirane, block, graft (9CI) (CA INDEX NAME)

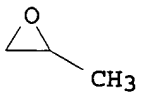
CM 1

CRN 79-10-7
CMF C3 H4 O2



CM 2

CRN 75-56-9
CMF C3 H6 O



CM 3

CRN 75-21-8
CMF C2 H4 O

CM 4

CRN 74-85-1
CMF C2 H4

L31 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:359775 HCAPLUS
DN 131:7534
TI A proton exchange membrane fuel cell power system
IN Fuglevand, William A.; Bayyuk, Shiblihanna I.; Lloyd, Greg A.; Devries, Peter D.; Lott, David R.; Scartozzi, John P.; Somers, Gregory M.; Stokes, Ronald G.
PA Avista Labs, USA
SO PCT Int. Appl., 145 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9927599	A1	19990603	WO 1998-US21769	19981015 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6030718	A	20000229	US 1997-979853	19971120 <--
	CA 2300846	AA	19990603	CA 1998-2300846	19981015 <--
	AU 9910889	A1	19990615	AU 1999-10889	19981015 <--
	AU 741975	B2	20011213		
	BR 9814617	A	20001003	BR 1998-14617	19981015 <--
	EP 1040529	A1	20001004	EP 1998-953546	19981015 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI

JP 2001524740	T2	20011204	JP 2000-522640	19981015	<--
JP 3744794	B2	20060215			
US 6218035	B1	20010417	US 1999-470321	19991221	<--
JP 2005135926	A2	20050526	JP 2005-1539	20050106	<--
JP 2005142167	A2	20050602	JP 2005-1518	20050106	<--
PRAI US 1997-979853	A	19971120	<--		
JP 2000-522640	A3	19981015	<--		
WO 1998-US21769	W	19981015	<--		

AB A proton exchange membrane fuel cell power system (for producing elec. power) includes a plurality of discrete fuel cell modules having at least two membrane electrode diffusion assemblies, each of the membrane electrode diffusion assemblies having opposite anode and cathode sides; a pair of current collectors individually disposed in juxtaposed ohmic elec. contact with opposite sides of the membrane electrode diffusion assemblies; and individual force application assemblies applying a given force to the pair of current collectors and the individual membrane electrode diffusion assemblies. The proton exchange fuel cell power system also includes an enclosure mounting a plurality of subracks which receive the discrete fuel cell modules. Addnl., a control system is disclosed which optimizes the performance parameters of the discrete proton exchange fuel cell modules.

IC ICM H01M008-10
ICS H01M008-24

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

IT Fuel cell **electrolytes**
Fuel cells
(proton exchange membrane fuel cell power system)

IT **225644-20-2**, 2-Propenoic acid, 2-methyl-, 3-sulfopropyl ester-polypropylene glycol monomethacrylate-2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester-2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester-1,2-Dimethoxyethane-ethylene graft copolymer 225644-21-3, 3-Sulfopropyl methacrylate-polypropylene glycol monomethacrylate copolymer 225644-22-4, 3-Sulfopropyl methacrylate-polyethylene glycol monomethacrylate copolymer 225644-63-3, 3-Sulfopropyl methacrylate-hydroxypropyl methacrylate copolymer **225644-64-4**, 3-Allyloxy-2-hydroxy-1-propanesulfonic acid-polypropylene glycol monomethacrylate-hydroxypropyl methacrylate-diethylene glycol monomethacrylate-ethylene graft copolymer **225644-65-5 225644-66-6**
RL: DEV (Device component use); USES (Uses)
(proton exchange membrane fuel cell power system)

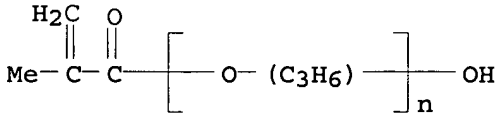
IT **225644-20-2**, 2-Propenoic acid, 2-methyl-, 3-sulfopropyl ester-polypropylene glycol monomethacrylate-2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester-2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester-1,2-Dimethoxyethane-ethylene graft copolymer **225644-64-4**, 3-Allyloxy-2-hydroxy-1-propanesulfonic acid-polypropylene glycol monomethacrylate-hydroxypropyl methacrylate-diethylene glycol monomethacrylate-ethylene graft copolymer **225644-65-5 225644-66-6**
RL: DEV (Device component use); USES (Uses)
(proton exchange membrane fuel cell power system)

RN 225644-20-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester, polymer with 1,2-dimethoxyethane, ethene, 2-hydroxypropyl 2-methyl-2-propenoate, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 3-sulfopropyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

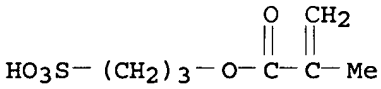
CM 1

CRN 39420-45-6
CMF (C3 H6 O)n C4 H6 O2
CCI IDS, PMS



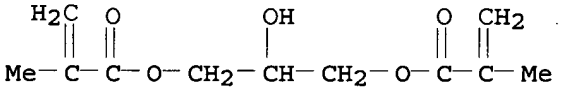
CM 2

CRN 7582-21-0
CMF C7 H12 O5 S



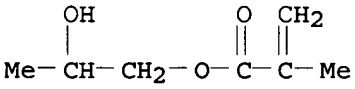
CM 3

CRN 1830-78-0
CMF C11 H16 O5



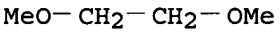
CM 4

CRN 923-26-2
CMF C7 H12 O3



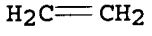
CM 5

CRN 110-71-4
CMF C4 H10 O2



CM 6

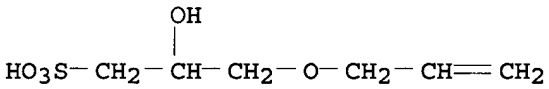
CRN 74-85-1
CMF C2 H4



RN 225644-64-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester, polymer with ethene, 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 1,2-propanediol mono(2-methyl-2-propenoate), graft (9CI) (CA INDEX NAME)

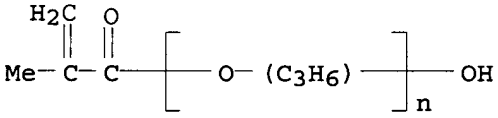
CM 1

CRN 94928-31-1
CMF C6 H12 O5 S



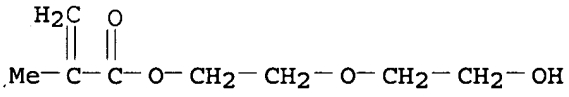
CM 2

CRN 39420-45-6
CMF (C3 H6 O)n C4 H6 O2
CCI IDS, PMS



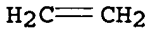
CM 3

CRN 2351-43-1
CMF C8 H14 O4



CM 4

CRN 74-85-1
CMF C2 H4

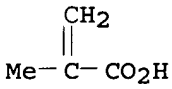


CM 5

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

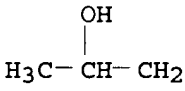
CM 6

CRN 79-41-4
CMF C4 H6 O2



CM 7

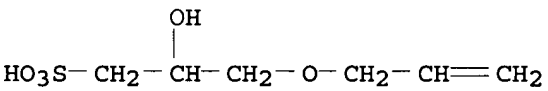
CRN 57-55-6
CMF C3 H8 O2



RN 225644-65-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, diester with 1,2,3-propanetriol, polymer with 1,1'-[1,2-ethanediylbis(oxy)]bis[ethene], ethene, 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl) and 1,2-propanediol mono(2-methyl-2-propenoate), graft (9CI) (CA INDEX NAME)

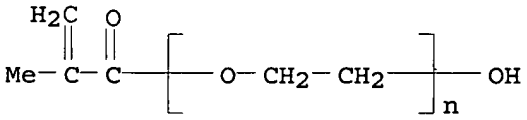
CM 1

CRN 94928-31-1
CMF C6 H12 O5 S



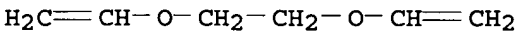
CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



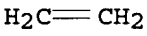
CM 3

CRN 764-78-3
CMF C6 H10 O2



CM 4

CRN 74-85-1
CMF C2 H4

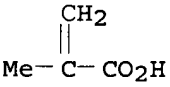


CM 5

CRN 28497-59-8
CMF C11 H16 O5
CCI IDS

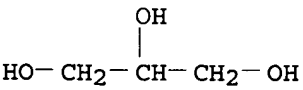
CM 6

CRN 79-41-4
CMF C4 H6 O2



CM 7

CRN 56-81-5
CMF C3 H8 O3

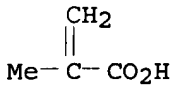


CM 8

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

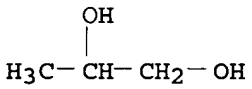
CM 9

CRN 79-41-4
CMF C4 H6 O2



CM 10

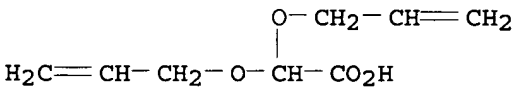
CRN 57-55-6
CMF C3 H8 O2



RN 225644-66-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, polymer with bis(2-propenyloxy)acetic acid, 1,1'-[1,2-ethanediylbis(oxy)]bis[ethene], ethene, 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

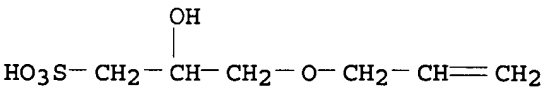
CM 1

CRN 161823-92-3
CMF C8 H12 O4



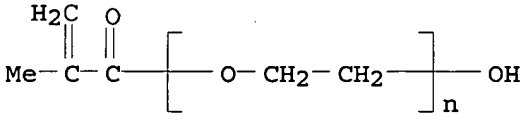
CM 2

CRN 94928-31-1
CMF C6 H12 O5 S



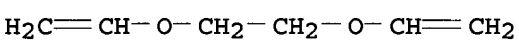
CM 3

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 4

CRN 764-78-3
CMF C6 H10 O2



CM 5

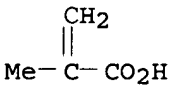
CRN 74-85-1
CMF C2 H4

CM 6

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

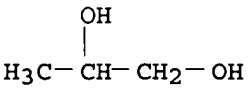
CM 7

CRN 79-41-4
CMF C4 H6 O2



CM 8

CRN 57-55-6
CMF C3 H8 O2



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

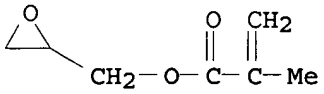
L31 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:29908 HCAPLUS
DN 124:69824
TI Composite **electrolyte** for primary and secondary batteries, electrochromic devices, and sensors
IN Okuyama, Kazuo; Suzuki, Yoshio; Ai, Hideo
PA Asahi Chemical Ind, Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07296634	A2	19951110	JP 1994-84457	19940422 <--
PRAI JP 1994-84457		19940422 <--		

AB The title composite **electrolyte** comprises (1) a core material made of polyolefin having proton-conductive functional group on the whole area and exchange capacity of 1-15 meq./g and (2) an ion-exchange resin having exchange capacity of 0.9-15 meq./g. The ion-exchange resin is fluoro ion-exchange resin having exchange capacity of 0.9-2 meq./g. It is required that the polyolefin has a sulfonic acid group as a proton-conductive functional group. A high-performance **electrolyte** film having small resistance can be provided.
IC ICM H01B001-06
ICS B01J047-12; C08F010-00; C08J005-22; H01M006-18; H01M008-02
CC 72-2 (Electrochemistry)
Section cross-reference(s): 52, 74, 79
ST composite **electrolyte** polyolefin ion exchange resin
IT Batteries, primary
Batteries, secondary
Sensors
(composite **electrolytes** for)
IT Sulfonic acids, uses
RL: NUU (Other use, unclassified); USES (Uses)
(perfluorocarbonsulfonic acid membranes; for preparing composite **electrolyte**)
IT Optical imaging devices
(electrochromic, composite **electrolytes** for)
IT Fluoropolymers
RL: NUU (Other use, unclassified); USES (Uses)
(sulfo-containing, membrane; for preparing composite **electrolyte**)
IT **119433-93-1**, Ethylene-glycidyl methacrylate graft copolymer
120668-45-3, Hipore 2100 148602-36-2, Acrylic acid-ethylene-sodium styrenesulfonate graft copolymer 172323-09-0, Acrylic acid-sodium styrenesulfonate-tetrafluoroethylene graft copolymer
RL: NUU (Other use, unclassified); USES (Uses)
(composite **electrolyte** comprising)
IT **119433-93-1**, Ethylene-glycidyl methacrylate graft copolymer
RL: NUU (Other use, unclassified); USES (Uses)
(composite **electrolyte** comprising)
RN 119433-93-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 74-85-1
CMF C2 H4

$H_2C{=}CH_2$

L31 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:934785 HCAPLUS
DN 124:12268
TI Polypropylene separator grafted with hydrophilic monomers for lithium batteries
AU Gineste, Jean Luc; Pourcelly, Gerald
CS Laboratoire de Materiaux et Procedes Membranaires, UMR 9987 CNRS, BP 5051, Montpellier, 34033, Fr.
SO Journal of Membrane Science (**1995**), 107(1-2), 155-64
CODEN: JMESDO; ISSN: 0376-7388
PB Elsevier
DT Journal
LA English
AB Acrylic acid and diethylene glycol dimethacrylate were grafted onto 50 μm polypropylene films. The physicochem. properties of the polymer films obtained were studied vs. the characteristics of grafting. The influence of temperature and monomer content on grafting kinetics is pointed out. Cycling performances of secondary lithium batteries including these grafted films as separators are also presented.
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38
IT Electric resistance
(of grafted polypropylene battery separator as function of **electrolyte** composition)
IT Electric conductivity and conduction
(of lithium hexafluoroarsenate **electrolyte** containing propylene carbonate, ethylene carbonate, and dimethoxyethane)
IT 29935-35-1, Lithium hexafluoroarsenate
RL: DEV (Device component use); USES (Uses)
(**electrolyte**; performance of lithium batteries with polypropylene separator grafted with acrylic acid and diethylene glycol dimethacrylate)
IT 96-49-1, Ethylene carbonate 108-32-7, Propylene carbonate 110-71-4
RL: DEV (Device component use); USES (Uses)
(lithium hexafluoroarsenate **electrolyte** containing; performance of lithium batteries with polypropylene separator grafted with acrylic acid and diethylene glycol dimethacrylate)
IT **171370-46-0P**
RL: DEV (Device component use); PEP (Physical, engineering or chemical

process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(polypropylene separator grafted with acrylic acid and diethylene glycol dimethacrylate for lithium batteries)

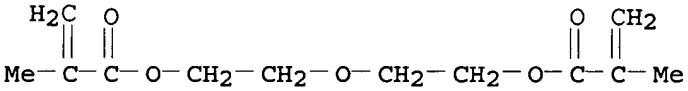
IT **171370-46-0P**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(polypropylene separator grafted with acrylic acid and diethylene glycol dimethacrylate for lithium batteries)

RN 171370-46-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester, polymer with 1-propene and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

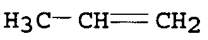
CM 1

CRN 2358-84-1
CMF C12 H18 O5



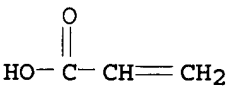
CM 2

CRN 115-07-1
CMF C3 H6



CM 3

CRN 79-10-7
CMF C3 H4 O2



L31 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:558424 HCAPLUS
DN 121:158424
TI Preparation of modified olefin polymer particles
IN Sato, Hiroyuki
PA Mitsubishi Petrochemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	JP 06122738	A2	19940506	JP 1993-153835	19930624 <--
	JP 3379793	B2	20030224		
PRAI	JP 1993-153835	A	19930624 <--		
	JP 1992-227479		19920826 <--		

AB The particles, useful for ionic binders, dispersants, **electrolytes**, etc., are prepared by heating of aqueous suspensions comprising 100 parts H2O, 5-100 parts olefin polymer particles, 0.05-50 parts vinyl monomers containing ≥1 groups selected from amino, OH, epoxy, and carboxy or anhydride, 0.0005-5 parts radical initiators with 10-h half-life temperature 40-130°, and 0.1-10 parts of a salt to reduce solubility of vinyl monomers in H2O. Thus, a mixture of H2O 20,000, Ca3(PO4)2 80, NaCl 400, poly(vinyl alc.) 8, powdered polyethylene 7200, tert-Bu peroxypivalate 80, Bz2O2 80, and N,N-dimethylaminoethyl methacrylate (I) 800 g was heated at 50° for 1 h, at 75° for 4 h, and at 85° for 2 h to give 7800 g modified polyethylene particles containing 8% I.

IC ICM C08F255-00
ICS C08F002-18; C08F002-44

CC 35-8 (Chemistry of Synthetic High Polymers)

IT **106444-64-8P**, Ethylene-2-hydroxyethyl methacrylate graft copolymer 107227-29-2P 107227-32-7P 108815-41-4P, Maleic anhydride-propylene-styrene graft copolymer **116945-18-7P**, Glycidyl methacrylate-propylene-styrene graft copolymer **119028-94-3P**, 2-Hydroxyethyl methacrylate-propylene graft copolymer **119433-93-1P**, Ethylene-glycidyl methacrylate graft copolymer 120444-55-5P 133150-60-4P, Methacrylic acid-propylene-styrene graft copolymer 136161-75-6P **148527-10-0P**
RL: PREP (Preparation)
(preparation of, powdered)

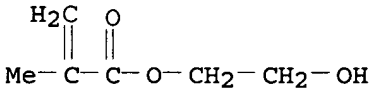
IT **106444-64-8P**, Ethylene-2-hydroxyethyl methacrylate graft copolymer **116945-18-7P**, Glycidyl methacrylate-propylene-styrene graft copolymer **119028-94-3P**, 2-Hydroxyethyl methacrylate-propylene graft copolymer **119433-93-1P**, Ethylene-glycidyl methacrylate graft copolymer **148527-10-0P**
RL: PREP (Preparation)
(preparation of, powdered)

RN 106444-64-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethene, graft (9CI) (CA INDEX NAME)

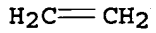
CM 1

CRN 868-77-9
CMF C6 H10 O3



CM 2

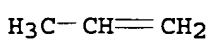
CRN 74-85-1
CMF C2 H4



RN 116945-18-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethenylbenzene and 1-propene, graft (9CI) (CA INDEX NAME)

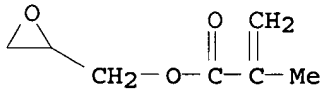
CM 1

CRN 115-07-1
CMF C3 H6



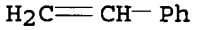
CM 2

CRN 106-91-2
CMF C7 H10 O3



CM 3

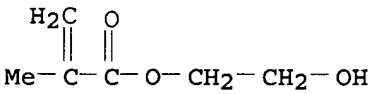
CRN 100-42-5
CMF C8 H8



RN 119028-94-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1-propene, graft (9CI) (CA INDEX NAME)

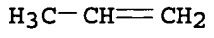
CM 1

CRN 868-77-9
CMF C6 H10 O3



CM 2

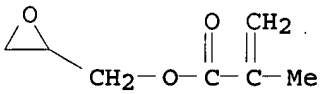
CRN 115-07-1
CMF C3 H6



RN 119433-93-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene, graft (9CI) (CA INDEX NAME)

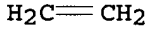
CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

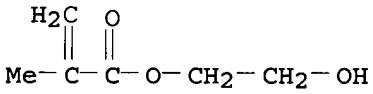
CRN 74-85-1
CMF C2 H4



RN 148527-10-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethene and ethenylbenzene, graft (9CI) (CA INDEX NAME)

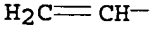
CM 1

CRN 868-77-9
CMF C6 H10 O3



CM 2

CRN 100-42-5
CMF C8 H8



CM 3

CRN 74-85-1
CMF C2 H4

$H_2C{=}CH_2$

L31 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:542974 HCAPLUS
DN 119:142974
TI Secondary batteries with improved separators
IN Kubota, Tadahiko
PA Fuji Photo Film Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

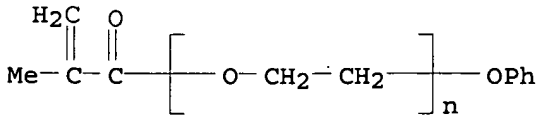
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05082114	A2	19930402	JP 1991-265475	19910918 <--
	US 5270137	A	19931214	US 1992-944986	19920915 <--
PRAI	JP 1991-265475	A	19910918 <--		

AB The batteries use polymer separators, obtained by treating a porous polymer substrate with plasma and grafting monomers on the substrate. The monomers may contain groups soluble in the battery **electrolyte**, and are preferably CH2:CR1R2 (R1 = H or alkyl, R2 = COX1(CH2CH2O)nR3 or COX1(CH2)xPh, or CN, X = O or NR4, R4 = H or alkyl, n is integer, R3 = H, C1-3 alkyl, aralkyl, aryl, x is integer), (2) CH2:CR5X2CR5:CH2 (R5 = H or alkyl, X2 = COX3CO, X3 = OX4O or O(CH2CH2O)m, X4 = alkylene, m is ≥1 integer), or (3) (CH2:CR6CO2CH2)3CR7 (R6 = H or alkyl, R7 = alkyl or CH2OR8, R8 = H or alkyl). The batteries using these separators have suppressed dendrite growth and long cycle life.

IC ICM H01M002-16
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38
IT 137091-22-6P **149797-11-5P 149797-12-6P**
149830-04-6P 149855-93-6P 149855-94-7P
149855-95-8P 149855-96-9P 149855-97-0P
RL: PREP (Preparation)
(separator, manufacture of, for batteries)
IT **149797-11-5P 149797-12-6P 149830-04-6P**
149855-93-6P 149855-95-8P 149855-96-9P
149855-97-0P
RL: PREP (Preparation)
(separator, manufacture of, for batteries)
RN 149797-11-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-phenoxy-, polymer with 1-propene, graft (9CI) (CA INDEX NAME)

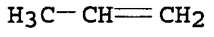
CM 1

CRN 50858-63-4
CMF (C2 H4 O)n C10 H10 O2
CCI PMS



CM 2

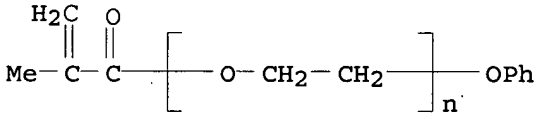
CRN 115-07-1
CMF C3 H6



RN 149797-12-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-phenoxy-, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1-propene, graft (9CI) (CA INDEX NAME)

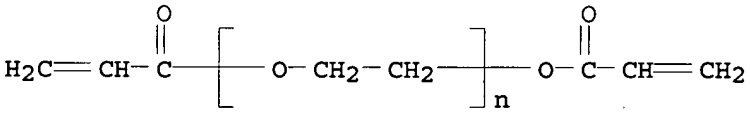
CM 1

CRN 50858-63-4
CMF (C2 H4 O)n C10 H10 O2
CCI PMS



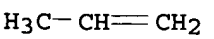
CM 2

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



CM 3

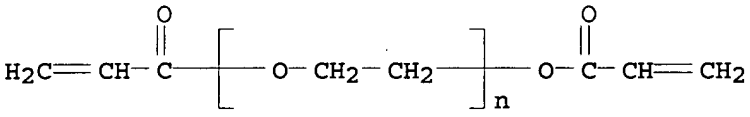
CRN 115-07-1
CMF C3 H6



RN 149830-04-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1-propene, graft (9CI) (CA INDEX NAME)

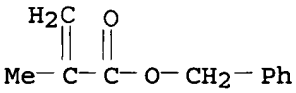
CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



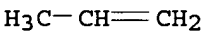
CM 2

CRN 2495-37-6
CMF C11 H12 O2



CM 3

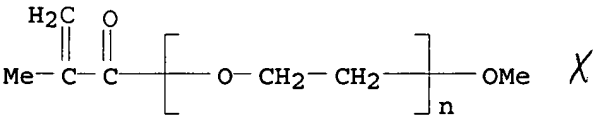
CRN 115-07-1
CMF C3 H6



RN 149855-93-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-methoxypoly(oxy-1,2-ethanediyl), α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1-propene, graft (9CI) (CA INDEX NAME)

CM 1

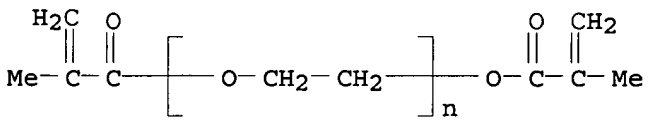
CRN 26915-72-0
CMF (C2 H4 O)n C5 H8 O2
CCI PMS



CM 2

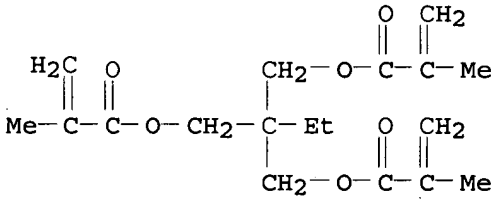
CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3

CCI PMS



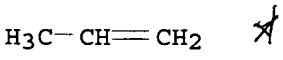
CM 3

CRN 3290-92-4
CMF C18 H26 O6



CM 4

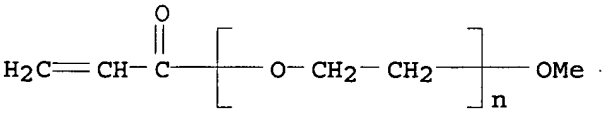
CRN 115-07-1
CMF C3 H6



RN 149855-95-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propenyl)-ω-methoxy-, polymer with 1-propene, graft (9CI) (CA INDEX NAME)

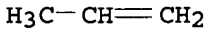
CM 1

CRN 32171-39-4
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 2

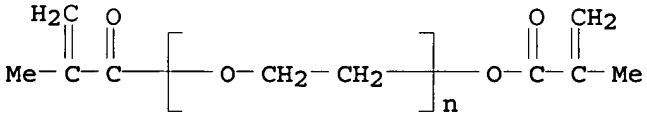
CRN 115-07-1
CMF C3 H6



RN 149855-96-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with α-(2-methyl-1-oxo-2-propenyl)-ω-[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1-propene, graft (9CI) (CA INDEX NAME)

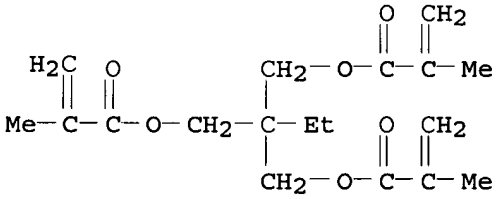
CM 1

CRN 25852-47-5
CMF (C2 H4 O)n C8 H10 O3
CCI PMS



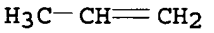
CM 2

CRN 3290-92-4
CMF C18 H26 O6



CM 3

CRN 115-07-1
CMF C3 H6

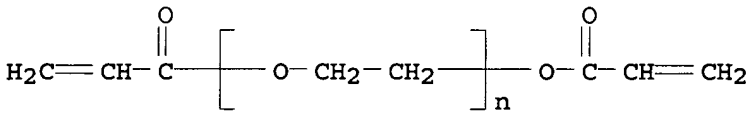


RN 149855-97-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) and 1-propene, graft (9CI) (CA INDEX NAME)

CM 1

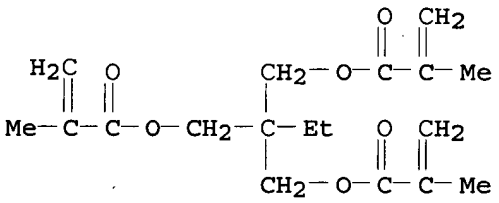
CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3

CCI PMS



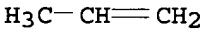
CM 2

CRN 3290-92-4
CMF C18 H26 O6



CM 3

CRN 115-07-1
CMF C3 H6



L31 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1989:39896 HCAPLUS
DN 110:39896
TI Heat-resistant polyolefin blend compositions
IN Iwashita, Toshiyuki; Mogi, Yoshihiro; Kurosawa, Hayashi; Funada, Hitoshi
PA Showa Denko K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63159420	A2	19880702	JP 1986-306364	19861224 <--
	JP 06057737	B4	19940803		
PRAI	JP 1986-306364		19861224 <--		

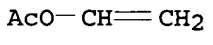
AB The title compns. with good transparency and elec. property and useful in preparing printed board substrates, flexible printed boards, potting compns. for **electrolyte** capacitors, etc. are prepared from olefin-unsatd. monocarboxylic acid copolymers, saponified and demetalized olefin-unsatd. carboxylate copolymers, and/or olefin-dicarboxylic acid (anhydride or half ester) copolymers 1-99, olefin-epoxy-containing unsatd. compound copolymers 1-99, and carboxylic acid ester plasticizers 1-50 parts. A mixture of acrylic acid-ethylene copolymer 50, ethylene-glycidyl methacrylate-vinyl

acetate copolymer 50, and di-Bu phthalate (I) 10 parts were molded to give a film having gel fraction 85.4%, peeling strength (of Cu foil laminate) 3.2 kg/25 mm, and haze (after heated 36 h at 60°) 0.8%, vs. 93.6, 6.2, and 2.6, resp., for a film without I.

IC ICM C08G059-18
ICS C08G059-18; C08G059-32; C08L023-08; C08L063-00
ICA C08K005-10
CC 37-6 (Plastics Manufacture and Processing)
IT **36604-80-5**, Ethylene-glycidyl methacrylate-vinyl acetate copolymer
52642-93-0
RL: USES (Uses)
(blends with ethylene-acrylate copolymers and plasticizers, transparent and heat-resistant)
IT **36604-80-5**, Ethylene-glycidyl methacrylate-vinyl acetate copolymer
52642-93-0
RL: USES (Uses)
(blends with ethylene-acrylate copolymers and plasticizers, transparent and heat-resistant)
RN 36604-80-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene and ethenyl acetate (9CI) (CA INDEX NAME)

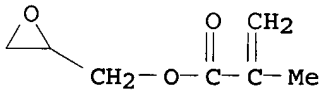
CM 1

CRN 108-05-4
CMF C4 H6 O2



CM 2

CRN 106-91-2
CMF C7 H10 O3



CM 3

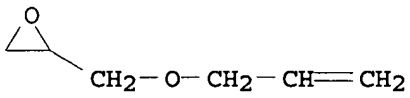
CRN 74-85-1
CMF C2 H4

RN 52642-93-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethene and [(2-propenyloxy)methyl]oxirane (9CI) (CA INDEX NAME)

CM 1

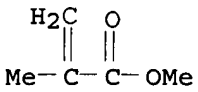
CRN 106-92-3

CMF C6 H10 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 74-85-1
CMF C2 H4

L31 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1987:423847 HCAPLUS
DN 107:23847
TI Synthesis of graft polyethylene having polyelectrolyte complex structure
AU Murata, Kenichi; Hayashi, Kazuko
CS Japan
SO Osaka Kogyo Gijutsu Shikensho Kiho (**1987**), 38(1), 1-7
CODEN: OKGKAE; ISSN: 0472-142X
DT Journal
LA Japanese
AB Preirradiated polyethylene was graft copolymd. with 2-(dimethylamino)ethyl methacrylate, and the resulting graft copolymer was treated with EtBr or HBr, and subsequently with Na p-styrenesulfonate. The p-styrenesulfonate groups in the graft copolymers were polymerized using (NH4)2S2O8 initiator in water. The stability of the resulting polyelectrolyte complexes in **electrolytic** solns. was investigated by immersing in 0.5 N NaBr, 0.5 N HBr, and 0.5 N and 1.0 N NaOH at 30° for 25 h. Although the complexes were stable to salt and acid, 20.apprx.25% was eluted by alkaline solution
CC 35-8 (Chemistry of Synthetic High Polymers)
IT 108811-95-6P 108811-96-7P **108811-97-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of)
IT 107227-29-2P **108811-91-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and quaternization of)
IT 108811-92-3P 108811-93-4P **108811-94-5P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with sodium styrenesulfonate)

IT 108811-88-7P 108811-89-8P 108811-90-1P **108828-62-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

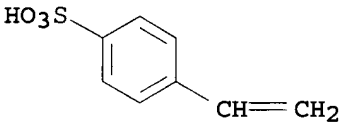
IT **108811-97-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of)

RN 108811-97-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethene and 2-hydroxyethyl 2-methyl-2-propenoate, graft, compd. with bromoethane and sodium 4-ethenylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 2695-37-6
CMF C8 H8 O3 S . Na



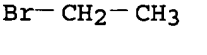
● Na

CM 2

CRN 108811-94-5
CMF (C8 H15 N O2 . C6 H10 O3 . C2 H4)x . x C2 H5 Br

CM 3

CRN 74-96-4
CMF C2 H5 Br

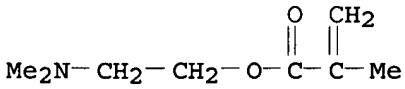


CM 4

CRN 108811-91-2
CMF (C8 H15 N O2 . C6 H10 O3 . C2 H4)x
CCI PMS

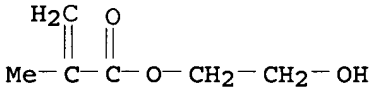
CM 5

CRN 2867-47-2
CMF C8 H15 N O2



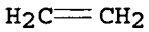
CM 6

CRN 868-77-9
CMF C6 H10 O3



CM 7

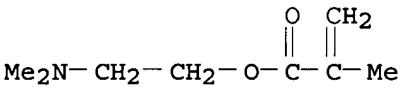
CRN 74-85-1
CMF C2 H4



IT **108811-91-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and quaternization of)
RN 108811-91-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethene and 2-hydroxyethyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

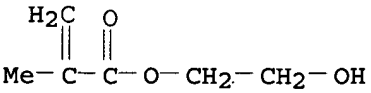
CM 1

CRN 2867-47-2
CMF C8 H15 N O2



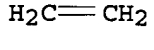
CM 2

CRN 868-77-9
CMF C6 H10 O3



CM 3

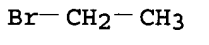
CRN 74-85-1
CMF C2 H4



IT **108811-94-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with sodium styrenesulfonate)
RN 108811-94-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethene and 2-hydroxyethyl 2-methyl-2-propenoate, graft, compd. with bromoethane (9CI) (CA INDEX NAME)

CM 1

CRN 74-96-4
CMF C2 H5 Br

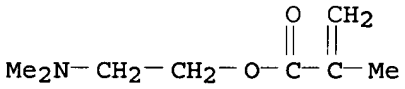


CM 2

CRN 108811-91-2
CMF (C8 H15 N O2 . C6 H10 O3 . C2 H4)x
CCI PMS

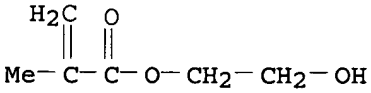
CM 3

CRN 2867-47-2
CMF C8 H15 N O2



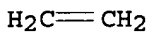
CM 4

CRN 868-77-9
CMF C6 H10 O3



CM 5

CRN 74-85-1
CMF C2 H4



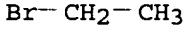
IT **108828-62-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 108828-62-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethene and 2-hydroxyethyl 2-methyl-2-propenoate, graft, compd. with bromoethane and sodium 4-ethenylbenzenesulfonate homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 108811-94-5
CMF (C8 H15 N O2 . C6 H10 O3 . C2 H4)x . x C2 H5 Br

CM 2

CRN 74-96-4
CMF C2 H5 Br

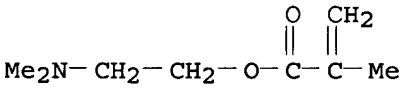


CM 3

CRN 108811-91-2
CMF (C8 H15 N O2 . C6 H10 O3 . C2 H4)x
CCI PMS

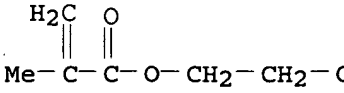
CM 4

CRN 2867-47-2
CMF C8 H15 N O2



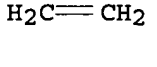
CM 5

CRN 868-77-9
CMF C6 H10 O3



CM 6

CRN 74-85-1
CMF C2 H4

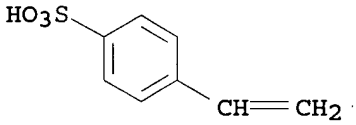


CM 7

CRN 25704-18-1
CMF (C8 H8 O3 S . Na)x
CCI PMS

CM 8

CRN 2695-37-6
CMF C8 H8 O3 S . Na



● Na

L31 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1983:217055 HCAPLUS
DN 98:217055
TI Synthetic thickener for printing pastes
AU Terteryan, R. A.; Ivanov, V. I.; Khrapov, V. S.; Repina, E. V.; Senakhov, A. V.; Lomakina, T. N.
CS VNIINP, Moscow, USSR
SO Lakokrasochnye Materialy i Ikh Primenenie (**1983**), (2), 10-13
CODEN: LAMAAD; ISSN: 0023-737X
DT Journal
LA Russian
AB The effect is shown of mol. weight, **crosslinking** agent type, and conditions of preparation of ethylene-maleic anhydride copolymer (I) [9006-26-2] on its rheol. and printing properties as a thickner. The apparent viscosity of I solns. linearly increased as logarithmic function of its mol. weight, and was optimal at the mol. weight .apprx.106. I with this mol. weight was obtained by polymerization at .apprx.150 MPa. At lower pressures, suitable thickness were prepared by polymerization in the presence of **crosslinking** agents. divinylbenzene-ethylene-maleic anhydride copolymer [85885-43-4] Had the lowest viscosity and thixotropic recover. Acceptable thixotropic recovery (75-85%) and viscosity (7.2-9.9 Pa-s at shear rate gradient 48.6s) were exhibited by 3-6% aqueous solns. of thickeners containing 2.4-5 mol. % allyl methacrylate (II) or ethylene glycol dimethacrylate (III) units. In most cases, the viscosity of thickeners

increased with increasing content of **crosslinking** agents, whereas thixotropic recovery decreased. The thickeners containing II units were recommended for the pastes with low ionic force, while those containing III units for pastes with reactive dyes, due to higher resistance to low.-mol.-weight **electrolytes** of the latter as compared to that of the formed.

CC 40-6 (Textiles)

ST thickener ethylene maleic anhydride copolymer; printing paste thickener **crosslinking** agent; viscosity printing thickener mol wt; thixotropy printing thickener **crosslinking** agent; rheol printing thickener **crosslinking** agent; polymn printing thickener **crosslinking** agent

IT **Crosslinking** agents
(for ethylene-maleic anhydride copolymer thickeners, for textile printing)

IT 9006-26-2 37309-45-8 77036-17-0 **85874-70-0** **85874-71-1**
RL: USES (Uses)
(thickeners, for textile printing pastes, rheol. of)

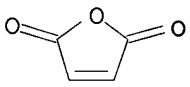
IT **85874-70-0** **85874-71-1**
RL: USES (Uses)
(thickeners, for textile printing pastes, rheol. of)

RN 85874-70-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with ethene and 2,5-furandione (9CI) (CA INDEX NAME)

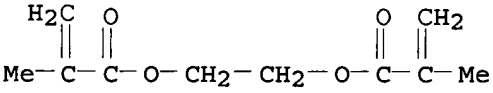
CM 1

CRN 108-31-6
CMF C4 H2 O3



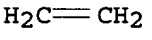
CM 2

CRN 97-90-5
CMF C10 H14 O4



CM 3

CRN 74-85-1
CMF C2 H4



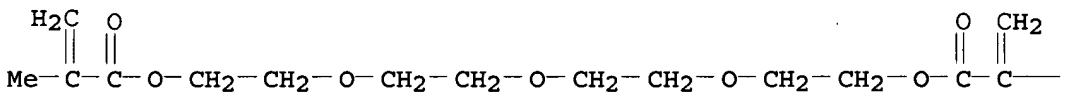
RN 85874-71-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxybis(2,1-ethanediyloxy-2,1-ethanediyl) ester, polymer with ethene and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 109-17-1
CMF C16 H26 O7

PAGE 1-A

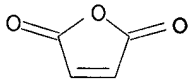


PAGE 1-B

—Me

CM 2

CRN 108-31-6
CMF C4 H2 O3



CM 3

CRN 74-85-1
CMF C2 H4

$H_2C{=}CH_2$

L31 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1981:489975 HCAPLUS
DN 95:89975
TI **Electrolytic** capacitor
PA Matsushita Electric Industrial Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 56049512	A2	19810506	JP 1979-125747	19790928 <--

PRAI JP 1979-125747 A 19790928 <--

AB A corrosion-resistant **electrolytic** capacitor is obtained by placing a separator soaked with an **electrolytic** solution between electrode foils, rolling to form an interior element, attaching pull-out leads to the interior element, sealing with a packaging film to form a capacitor element, placing the capacitor element in an exterior case having terminals, and connecting the leads and terminals. A laminate from metal and resin (e.g., polyolefin, ionomer resin) films may be used for packaging.

IC H01G009-08

CC 76-3 (Electric Phenomena)

ST **electrolytic** capacitor ionomer laminate; metal laminate **electrolytic** capacitor; polyolefin laminate **electrolytic** capacitor; olefin polymer laminate **electrolytic** capacitor

IT Alkenes, polymers
Ionomers
Metals, uses and miscellaneous
Polyesters, uses and miscellaneous
RL: USES (Uses)
(**electrolytic** capacitor packaging by laminated films from)

IT Electric capacitors
(**electrolytic**, laminate packaging for)

IT 7429-90-5, uses and miscellaneous 9002-88-4 9010-77-9 9078-96-0 **36604-80-5** 78690-54-7
RL: USES (Uses)
(**electrolytic** capacitor packaging by laminated films from)

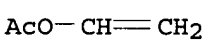
IT **36604-80-5**
RL: USES (Uses)
(**electrolytic** capacitor packaging by laminated films from)

RN 36604-80-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethene and ethenyl acetate (9CI) (CA INDEX NAME)

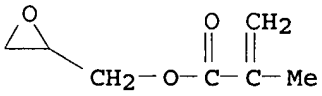
CM 1

CRN 108-05-4
CMF C4 H6 O2



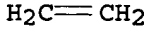
CM 2

CRN 106-91-2
CMF C7 H10 O3



CM 3

CRN 74-85-1
CMF C2 H4



=>

functional groups (that is, vinyl group, epoxy group, amino group, amide group, imide group, hydroxyl group, methylol group, carboxyl group and isocyanate group),

(ii) select one of the non-crosslinked polymer in claim 1, including identifying whether it comprises an ethylene unit, a propylene unit or both, **and**

(iii) select one of the polyalkylene glycol in claim 3 (that is, polyethylene glycol, polypropylene glycol or polyethylene/propylene glycol).

In response to the species election requirement, Applicants hereby elect, with traverse, to prosecute the species comprising (i) a crosslinkable monomer having a methylol group and an isocyanate group, (ii) a non-crosslinked polymer having an ethylene unit and a propylene unit, and (iii) polyethylene glycol. C1 8

As discussed previously of record, Applicants, however, respectfully request that the Examiner reconsider and withdraw the requirement.

Applicants maintain that the various species are not independent. In addition, Applicants further maintain that it would not be a serious burden on the Examiner if restriction is not required, because a search of the prior art for one species would likely identify art for other species. Accordingly, the Examiner should examine all of the species covered by the claims on the merits.

Accordingly, in view of the preceding remarks, Applicants respectfully request that the Examiner reconsider and withdraw the restriction requirement.

No fee is deemed necessary in connection with the filing of this Communication. However, if any fee is required, authorization is